

CLAIMS

1. A method of making an imageable element comprising the steps of:
providing a substrate;
applying onto the surface of the substrate a photosensitive composition
5 comprising:
a mixture of an aromatic diazonium salt containing compound having an alkoxy
substituent and an aromatic diazonium salt containing compound free of an alkoxy
substituent; and
treating the photosensitive composition to form a layer that adheres to the
10 surface of the substrate.
2. The method of claim 1, wherein the substrate comprises metals, polymeric
films, papers, or laminates.
- 15 3. The method of claim 1, wherein the substrate comprises an aluminum sheet.
4. The method of claim 3, wherein the aluminum sheet is grained or anodized.
5. The method of claim 1, wherein the photosensitive composition is free of
20 binders.
6. The method of claim 1, wherein treating the photosensitive composition to
form a layer comprises drying the photosensitive composition.

7. The method of claim 1, wherein the aromatic diazonium salt containing compound having an alkoxy substituent is the condensation product of the alkoxy-substituted aromatic diazonium salt and formaldehyde, bis-(alkoxymethyl) diphenyl ether or a combination thereof.
8. The method of claim 7, wherein the condensation agent is a bis-(alkoxymethyl) diphenyl ether.
9. The method of claim 8, wherein the bis-(alkoxymethyl) diphenyl ether is bis-(methoxymethyl) diphenyl ether.
10. The method of claim 7, wherein the aromatic diazonium salt containing compound having an alkoxy substituent is 3-methoxy-4-diazodiphenylamine sulfate.
11. The method of claim 1, wherein the aromatic diazonium salt containing compound having an alkoxy substituent is a mesitylene sulfonate salt.
12. The method of claim 1, wherein the aromatic diazonium salt containing compound free of an alkoxy substituent is the condensation product of the aromatic diazonium salt containing compound free of an alkoxy substituent and formaldehyde, bis(alkoxymethyl) diphenyl ether or a combination thereof.

13. The method of claim 12, wherein the aromatic diazonium salt containing compound free of alkoxy substituent is 4-diazodiphenylamine sulfate.

14. The method of claim 12, wherein the condensation agent is formaldehyde.

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15. The method of claim 1, wherein the aromatic diazonium salt containing compound which is free of an alkoxy substituent is a toluene sulfonate salt.

16. The method of claim 1, wherein the molar ratio of the aromatic diazonium salt containing compound having an alkoxy substituent to the aromatic diazonium salt containing compound free of an alkoxy substituent is from about 0.7:1 to about 70:1.

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17. The method of claim 1, wherein the diazonium salt containing compounds comprise at least 10 wt % of the photosensitive composition.

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18. The method of claim 1, further comprising applying a primer layer between the substrate and the photosensitive composition.

19. The method of claim 1, wherein the photosensitive composition further comprises a binder.

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20. The method of claim 19, wherein the binder is a vinyl acetal polymer, a urethane polymer, a acrylate polymer, a methacrylate polymer or combination thereof.

5 21. The method of claim 20, wherein the binder is a substituted vinyl acetal polymer comprising one or more solubilizing groups.

22 The method of claim 21, wherein the solubilizing group is a carboxylic acid, sulfonic acid, phenol, sulfonamide, N-acylsulfonamide, N-acylurethanes or a
10 combination thereof.

23. The method of claim 21, wherein the solubilizing group is carboxylic acid.

24. The method of claim 20, wherein the urethane polymer is a reaction product of
15 a diol monomer and one or more diisocyanate monomers.

25. The method of claim 24, wherein the diol comprises: ethylene glycol, polyethylene glycol, propylene glycol, polypropylene glycol, neopentyl glycol or a mixture thereof.

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26. The method of claim 1, wherein the imageable element is insoluble after exposure to imaging radiation.

27. The method of claim 1, wherein the photosensitive composition further comprises plasticizers, adhesion promoters, dyestuffs, pigments, color couplers, flow control agents or UV absorbers.